#### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: : Before the Examiner:

Eibach et al. : Poltorak, Peter

Serial No.: 09/501,756 : Group Art Unit: 2134

Filing Date: February 10, 2000

ining Date: February 10, 2000

Title: SECURITY FOR : IBM Corporation
NETWORK-CONNECTED : Dept. T81/Bldg. 503
VEHICLES AND OTHER : P.O. Box 12195

NETWORK-CONNECTED : 3039 Cornwallis Road
PROCESSING ENVIRONMENTS : Research Triangle Park, NC 27709

#### SECOND APPEAL BRIEF

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria. VA 22313-1450

#### I. REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation, which is the assignee of the entire right, title and interest in the above-identified patent application.

#### II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### III. STATUS OF CLAIMS

Claims 1-5, 7-8 and 10-11 are pending in the Application. Claims 6 and 9 were cancelled. Claims 1-5, 7-8 and 10-11 stand rejected. Claims 1-5, 7-8 and 10-11 are appealed.

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#### IV. STATUS OF AMENDMENTS

Appellants have not submitted any amendments following receipt of the final rejection with a mailing date of September 8, 2006.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

#### Independent Claim 1:

In one embodiment of the present invention, a data processing apparatus for a vehicle, includes a first data processing unit (A) connected to device control units of the vehicle. Specification, page 6, line 12 - page 9, line 5; Figure 1, element 20. The data processing apparatus further comprises a second data processing unit (B) connected to a communications apparatus providing a wireless connection to an external network, such that operation requests can be received at the second data processing unit (B) from the external network. Specification, page 6, line 12 - page 9, line 5; Figure 1, element 70. The data processing apparatus further comprises a data communications link between the first and second data processing units. Specification, page 6, line 12 - page 9, line 5; Figure 1, elements 20, 70, 190. The data processing apparatus further comprises a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations. Specification, page 6, line 12 - page 7, line 16; Specification, page 9, line 12 - page 11, line 11; Figure 1, elements 50, 60, 70, 190.

#### Independent Claim 7:

In one embodiment of the present invention, a data processing apparatus, includes a first data processing unit connected to one or more security-critical resources. Specification, page 6, line 12 – page 9, line 5; Figure 1, elements 20, 60. The data processing apparatus further includes a second data processing unit connected to an external communications network such that operation requests can be

received from the external network. Specification, page 6, line 12 – page 9, line 5; Figure 1, element 70. The data processing apparatus further includes a data communications link between the first and second data processing units. Specification, page 6, line 12 – page 9, line 5; Figure 1, elements 20, 70, 190. The data processing apparatus further includes a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation, wherein the first and second data processing units and the link between them are implemented within a network-connected home environment, and the security-critical resources include security-critical devices within the home which are managed by application programs running on the first data processing unit. Specification, page 6, line 12 – page 7, line 16; Specification, page 9, line 12 – page 11, line 11; Figure 1, elements 20, 50, 60, 70, 190.

#### Independent Claim 10:

In one embodiment of the present invention, a method for controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link, the method comprises storing a list of permitted operations which can be requested from the second data processing unit. Specification, page 6, line 12 – page 7, line 16; Specification, page 9, line 12 – page 11, line 11; Figure 1, elements 20, 70, 190. The method further comprises comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations; and only executing the permitted operations. Specification, page 6, line 12 – page 7, line 16; Specification, page 9, line 12 – page 11, line 11; Figure 1, elements 20, 50, 190.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claim 4 stands rejected under 35 U.S.C. §112, first paragraph.
- B. Claim 4 stands rejected under 35 U.S.C. §112, second paragraph.
- C. Claim 10 stands rejected under 35 U.S.C. §102(b) as being anticipated by Charles P. Pfleeger, "Security in Computing," 2<sup>nd</sup> Edition, 1996 (hereinafter "Pfleeger").
- D. Claim 10 stands rejected under 35 U.S.C. §102(e) as being anticipated by Barkley et al. (U.S. Patent No. 6,202,066) (hereinafter "Barkley").
- E. Claims 1 and 10-11 stand rejected under 35 U.S.C. §102(e) as being anticipated by Nathanson (U.S. Patent No. 6,263,268).
- F. Claims 7-8 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chen (U.S. Patent No. 6,060,994) in view of Pfleeger.
- G. Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Coverdill et al. (U.S. Patent No. 5,890,080) (hereinafter "Coverdill").
- H. Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Elkin et al. (U.S. Patent No. 6,123,174) (hereinafter "Elkin").
- I. Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Coverdill and in further view of Serughett, "OSEK: a super-small kernel for deeply embedded applications?" 1999) (hereinafter "Serughett").
- J. Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Elkin and in further view of Serughett.

K. Claims 7-8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Bassett et al. (U.S. Patent No. 5,706,191) (hereinafter "Bassett") in view of Richardson et al. (U.S. Patent No. 6,427,202) (hereinafter "Richardson").

#### VII. ARGUMENT

## Claim 4 is improperly rejected under 35 U.S..C. §112, first paragraph.

The Examiner has rejected claim 4 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Office Action (2/26/2007), page 4. In particular, the Examiner asserts that claim 4 fails to comply with the enablement requirement since the subject matter was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. *Id.* The Examiner, in his rejection of claim 4, focuses on the claim language of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests." *Id.* Appellants respectfully traverse.

The enablement requirement refers to the requirement of 35 U.S.C. §112, first paragraph, that the specification describe how to make and how to use the invention. M.P.E.P. §2164. The invention that one skilled in the art must be enabled to make and use is that defined by the claim(s) of the particular application or patent. *Id.* 

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. M.P.E.P. §2164.01. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of Mineral Separation v. Hyde,

242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? *Id.* 

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. A patent need not teach, and preferably omits, what is well known in the art. In re Buchner, 929 F.2d 660, 661, 18 U.S.P.Q.2d 1331, 1332 (Fed. Cir. 1991); M.P.E.P. §2164.01.

The Examiner must provide objective evidence rather than relying on his own subjective opinion as to the assertion that "undue experimentation" would have been needed to make and use the claimed invention. The Examiner must consider factors in determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." M.P.E.P. §2164.01(a). These factors include, but are not limited to: (a) the breadth of the claims; (b) the nature of the invention; (c) the state of the prior art; (d) the level of one of ordinary skill; (e) the level of predictability in the art; (f) the amount of direction provided by the inventor; (g) the existence of working examples; and (h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. [d].

The Examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of non-enablement must be based on the evidence as a whole. In re Wands, 858 F.2d 731, 737, 740, 8 U.S.P.Q.2d 1400, 1404, 1407 (Fed. Cir. 1988). A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. In re Wright, 999 F.2d 1557, 1562, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993). The Examiner has not considered any evidence related to any of the factors discussed above. The Examiner has the initial burden to establish a reasonable basis to

question the enablement provided for the claimed invention which is satisfied by considering the factors related above. *In re Wright*, 999 F.2d 1557, 1562, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993). Since the Examiner has not considered any evidence related to any of the factors discussed above, the Examiner has not met his initial burden of proving that claim 4 fails to comply with the enablement requirement. Consequently, claim 4 is allowable under 35 U.S.C. §112, first paragraph.

Further, undue or unreasonable experimentation is not required to practice the invention claimed in claim 4. Appellants kindly direct the Board's attention to at least page 9, line 22 - page 10, line 7) of Appellants' Specification which provides support for the claim limitation of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" in claim 4. Appellants' Specification (page 9, lines 22-26) states in part that the gateway component of processing unit B checks the predefined authorized parties' permissions by checking an access control list to determine whether this party (or this program code) is permitted to initiate the particular requested operation. Appellants' Specification (page 10, lines 4-7) further states in part that if a request is determined to be permitted by reference to the access control list, the gateway component on processing unit B then sends the request as a message to the gateway component on processing unit A. Hence, there is ample support for the above-cited claim limitation. Accordingly, the specification describes how to make and how to use the invention claimed in claim 4. Accordingly, the specification complies with the enablement requirement in connection with claim 4. Consequently, claim 4 is allowable under 35 U.S.C. §112, first paragraph.

B. <u>Claim 4 is not properly rejected under 35 U.S.C. §112, second paragraph.</u>

The Examiner has rejected claim 4 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention. Office Action (2/26/2007), page 5. In particular, the Examiner asserts that the language of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests," as recited in claim 4, is not understood. *Id.* Appellants respectfully traverse.

A rejection under 35 U.S.C. §112, second paragraph, is not appropriate, when the scope of the claimed subject matter can be determined by one having ordinary skill in the art. M.P.E.P. §2173. Appellants respectfully assert that one having ordinary skill in the art can determine the scope of the limitation of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests," as recited in claim 4. Appellants kindly direct the Board's attention to at least page 9, line 22 - page 10, line 7 of Appellants' Specification which provides support for the claim limitation of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" in claim 4. Appellants' Specification (page 9, lines 22-26) states in part that the gateway component of processing unit B checks the predefined authorized parties' permissions by checking an access control list to determine whether this party (or this program code) is permitted to initiate the particular requested operation. Appellants' Specification (page 10, lines 4-7) further states in part that if a request is determined to be permitted

by reference to the access control list, the gateway component on processing unit B then sends the request as a message to the gateway component on processing unit A. Hence, there is ample support for the above-cited claim limitation.

The Examiner has not provided any evidence that a person of ordinary skill in the art would not be able to determine the scope of the claimed subject matter in claim 4. One having ordinary skill in the art can determine the scope of the claimed subject matter in claim 4. Consequently, Appellants respectfully assert that claim 4 is allowable under 35 U.S.C. §112, second paragraph.

Further, the Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. §112, second paragraph, should be whether the claim meets the threshold requirement of clarity and precision, not whether more suitable language or modes of expression are available. M.P.E.P. §2173.02. Definiteness of claim language must be analyzed, not in a vacuum, but in light of the content of the particular application disclosure; the teachings of the prior art; and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. M.P.E.P. §2173.02. In reviewing a claim for compliance with 35 U.S.C. §112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. §112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., Solomon v. Kimberly-Clark Corp., 216 F.3d 1372, 1379, 55 U.S.P.O.2d 1279, 1283 (Fed. Cir. 2000); M.P.E.P. §2173.02. As shown above, the scope of claim 4, and in particular the limitation "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests," when analyzed in light of the Specification, can be determined by one of ordinary skill in the art and therefore

serves the notice function required by 35 U.S.C. §112, second paragraph. Consequently, Appellants respectfully assert that claim 4 is allowable under 35 U.S.C. §112, second paragraph.

Further, the Examiner's basis for his rejection of claim 4 under 35 U.S.C. §112, second paragraph, is that the language of "wherein the second processing unit includes a gateway component for comparing all requests for the performance of operations on the first processing unit with the access control lists and only passing to the first processing unit those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" is unclear to the Examiner. Office Action (2/26/2007), page 5. Appellants respectfully contend that this ground of rejection does not provide a basis for a rejection under 35 U.S.C. § 112, second paragraph. The purpose of a claim is not to explain technology or how it works. S3 Inc. v. nVIDIA Corp., 59 U.S.P.O.2d 1745, 1748 (Fed. Cir. 2001). The purpose is to state the legal boundaries of the patent grant. Id. Appellants respectfully assert that the claimed subject matter in claim 4 can be determined by one having ordinary skill in the art. The rejection under 35 U.S.C. § 112, second paragraph, is not appropriate if the scope of the claimed subject matter can be determined by one having ordinary skill in the art. M.P.E.P. §2173. Consequently, Appellants respectfully assert that claim 4 is allowable under 35 U.S.C. § 112, second paragraph.

# C. Claim 10 is not properly rejected under 35 U.S.C. §102(b) as being anticipated by Pfleeger.

The Examiner has rejected claim 10 under 35 U.S.C. §102(b) as being anticipated by Pfleeger. Office Action (2/26/2007), page 5. Appellants respectfully traverse.

Appellants respectfully assert that Pfleeger does not disclose "storing a list of permitted operations which can be requested from the second data processing unit" as recited in claim 10. The Examiner cites a firewall and pages 426-434 of Pfleeger as

disclosing the above-cited claim limitation. Office Action (2/26/2007), page 5. Appellants respectfully traverse.

Pfleeger instead discloses that a firewall is a process that filters all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Page 428.

There is no language in the cited passage that discloses storing a list of permitted operations. Neither is there any language in the cited passage that discloses storing a list of permitted operations which can be requested from a second data processing unit. Thus, Pfleeger does not disclose all of the limitations of claim 10, and thus Pfleeger does not anticipate claim 10. M.P.E.P. §2131.

Appellants further assert that Pfleeger does not disclose "comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations" as recited in claim 10. The Examiner cites a firewall and pages 426-434 of Pfleeger as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 5. Appellants respectfully traverse.

Pfleeger instead discloses that a firewall is a process that filters all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Page 428.

There is no language in the cited passage that discloses comparing, by a secure gateway component which controls communications across the communications link. Neither is there any language in the cited passage that disclose comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit. Neither is there any language in the cited passage that disclose comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations

relating to secure resources on the first data processing unit with the list of permitted operations. Thus, Pfleeger does not disclose all of the limitations of claim 10, and thus Pfleeger does not anticipate claim 10. M.P.E.P. §2131.

Appellants further assert that Pfleeger does not disclose "only executing the permitted operations" as recited in claim 10. The Examiner cites a firewall and pages 426-434 of Pfleeger as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 5. Appellants respectfully traverse.

Pfleeger instead discloses that a firewall is a process that filters all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Page 428.

There is no language in the cited passage that discloses only executing the permitted operations. Thus, Pfleeger does not disclose all of the limitations of claim 10, and thus Pfleeger does not anticipate claim 10. M.P.E.P. §2131.

### Claim 10 is not properly rejected under 35 U.S.C. §102(e) as being anticipated by Barkley.

Appellants respectfully assert that Barkley does not disclose "only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link" as recited in claim 10. The Examiner cites column 1, lines 32-54 of Barkley as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 6. Appellants respectfully traverse.

Barkley instead discloses that networks may be operated under control of an "operating system," which may include the capability to provide varying individuals with varying 'permissions' with respect to objects stored on the file server. Column 1, lines 38-42. Barkley further discloses that Microsoft Corporation's "Windows NT" operating system provides this capability, by associating an "access control list" with each "object," e.g., with each controlled file or group of files, i.e., with a directory of controlled files. Column 1, lines 42-48. Barkley additionally discloses that Windows

NT allows various permissions to be associated by the access control list with individuals or groups of individuals, so that the access sought is permitted only if the user's identification matches the user entry in the access control list or the user is a member of a group entry in the access control list, and the user or group entry is associated with permissions for the access sought. Column 1, lines 48-54. Hence, Barkley discloses that Windows NT allows various permissions to be associated by the access control list with individuals or groups of individuals, so that the access sought is permitted only if the user's identification matches the user entry in the access control list or the user is a member of a group entry in the access control.

There is no language in the cited passage that discloses only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit. Neither is there any language in the cited passage that discloses only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link. Thus, Barkley does not disclose all of the limitations of claim 10, and thus Barkley does not anticipate claim 10. M.P.E.P. §2131.

Appellants further assert that Barkley does not disclose "comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations" as recited in claim 10. The Examiner cites column 1, lines 32-54 of Barkley as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 6. Appellants respectfully traverse

Barkley instead discloses that networks may be operated under control of an "operating system," which may include the capability to provide varying individuals with varying 'permissions' with respect to objects stored on the file server. Column 1, lines 38-42. Barkley further discloses that Microsoft Corporation's "Windows NT'

operating system provides this capability, by associating an "access control list" with each "object," e.g., with each controlled file or group of files, i.e., with a directory of controlled files. Column 1, lines 42-48. Barkley additionally discloses that Windows NT allows various permissions to be associated by the access control list with individuals or groups of individuals, so that the access sought is permitted only if the user's identification matches the user entry in the access control list or the user is a member of a group entry in the access control list, and the user or group entry is associated with permissions for the access sought. Column 1, lines 48-54. Hence, Barkley discloses that Windows NT allows various permissions to be associated by the access control list with individuals or groups of individuals, so that the access sought is permitted only if the user's identification matches the user entry in the access control list or the user is a member of a group entry in the access control.

There is no language in the cited passage that discloses comparing, by a secure gateway component which controls communications across the communications link. Neither is there any language in the cited passage that disclose comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit. Neither is there any language in the cited passage that disclose comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations. Thus, Barkley does not disclose all of the limitations of claim 10, and thus Barkley does not anticipate claim 10. M.P.E.P. §2131.

- E. Claims 1 and 10-11 are not properly rejected under 35 U.S.C. §102(e) as being anticipated by Nathanson.
  - Claim 1 is not anticipated by Nathanson.

Appellants respectfully assert that Nathanson does not disclose "a gateway component for controlling communications across the data communications link, the

gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations" as recited in claim 1. The Examiner cites element 25 of Nathanson as disclosing the second data processing unit and cites element 15 as disclosing the first data processing unit. Office Action (2/26/2007), page 8. The Examiner further asserts that there is a communication link between diagnostic means 15 and server 25. Office Action (2/26/2007), page 9. The Examiner further cites column 3, lines 1-30 of Nathanson as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 9. Appellants respectfully traverse.

Nathanson instead discloses that server 25 in effect acts as a "universal translator," allowing a remote client to interact with any diagnostic means of any vehicle. Column 3, lines 4-6. Nathanson further discloses that one way of achieving this end is through the implementation of a request/response protocol which acts as a proxy for the corresponding OBD protocols. Column 3, lines 6-9. Nathanson additionally discloses that under this type of protocol, an abstract request from the remote client which is received by the server is mapped to the corresponding request under the specialist OBD protocols and is then transmitted on the diagnostic means or memory, as appropriate. Column 3, lines 9-13. Hence, Nathanson discloses that server 25 (Examiner asserts that server 25 discloses the second data processing unit) maps an abstract request from the remote client to the corresponding request under the specialist OBD protocol.

There is no language in the cited passage that discloses a <u>gateway component</u> for controlling communications <u>across the data communications link</u> (referring to the data communication link between the fist and second data processing units). Instead, Nathanson discloses a server 25 (Examiner asserts that server 25 discloses the second data processing unit) maps an abstract request <u>from the remote client</u>. There is no language that discloses controlling communications across a data communications link between diagnostic means 15 (Examiner asserts that diagnostic means 15

discloses a first data processing unit) and server 25 (Examiner asserts that server 25 discloses a second data processing unit).

Neither is there any language in the cited passage that discloses a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests. Instead, Nathanson discloses a server 25 mapping abstract requests from the remote client to the corresponding request under the specialist OBD protocols. Neither is there any language in the cited passage that discloses a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units.

Thus, Nathanson does not disclose all of the limitations of claim 1, and thus Nathanson does not anticipate claim 1. M.P.E.P. §2131.

Further, as understood by Appellants, the Examiner asserts that column 3, lines 1-30 is interpreted by the Examiner to disclose "a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations" as recited in claim 1. Office Action (2/26/2007), page 9. Appellants respectfully traverse. The Examiner must provide a basis in fact and/or technical reasoning to support the assertion that the teaching in column 3, lines 1-30 of Nathanson corresponds to a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations. Exparte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must provide extrinsic evidence that must make clear that the teaching in column 3, lines 1-30 of Nathanson corresponds to a gateway component for controlling communications

across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Since the Examiner has not provided any such objective evidence, the Examiner has not presented a *prima facie* case of anticipation for rejecting claim 1. M.P.E.P. §2131.

#### 2. Claim 10 is not anticipated by Nathanson.

Appellants respectfully assert that Nathanson does not disclose "controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link" as recited in claim 10. As understood by Appellants, the Examiner cites column 3, lines 1-30 of Nathanson as disclosing the above-cited claim limitation. Office Action (2/26/2007), page 9. Appellants respectfully traverse.

Nathanson instead discloses that server 25 in effect acts as a "universal translator," allowing a remote client to interact with any diagnostic means of any vehicle. Column 3, lines 4-6. Nathanson further discloses that one way of achieving this end is through the implementation of a request/response protocol which acts as a proxy for the corresponding OBD protocols. Column 3, lines 6-9. Nathanson additionally discloses that under this type of protocol, an abstract request from the remote client which is received by the server is mapped to the corresponding request under the specialist OBD protocols and is then transmitted on the diagnostic means or memory, as appropriate. Column 3, lines 9-13. Hence, Nathanson discloses that server 25 (Examiner asserts that server 25 discloses the second data processing unit) maps an abstract request from the remote client to the corresponding request under the specialist OBD protocol.

There is no language in the cited passage that discloses controlling the initiation of operations relating to secure resources on a first data processing unit. Neither is there any language in the cited passage that discloses controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit. Neither is there any language in the cited passage that discloses controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link. Thus, Nathanson does not disclose all of the limitations of claim 10, and thus Nathanson does not anticipate claim 10. M.P.E.P. §2131.

Appellants further assert that Nathanson does not disclose "storing a list of permitted operations which can be requested from the second data processing unit" as recited in claim 10. The Examiner has not specifically addressed this limitation. The Examiner is reminded that in order to establish a prima facie case of anticipation, the Examiner must provide a single prior art reference that expressly or inherently describes each and every element as set forth in the claim. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Since the Examiner has not addressed this limitation, the Examiner has not established a prima facie case of anticipation in rejecting claim 10. M.P.E.P. §2131.

Appellants further assert that Nathanson does not disclose "comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations" as recited in claim 10. The Examiner is reminded that in order to establish a *prima facie* case of anticipation, the Examiner must provide a single prior art reference that expressly or inherently describes each and every element as set forth in the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir.

1987). Since the Examiner has not addressed this limitation, the Examiner has not established a *prima facie* case of anticipation in rejecting claim 10. M.P.E.P. §2131.

Appellants further assert that Nathanson does not disclose "only executing the permitted operations" as recited in claim 10. The Examiner has not specifically addressed this limitation. The Examiner is reminded that in order to establish a prima facie case of anticipation, the Examiner must provide a single prior art reference that expressly or inherently describes each and every element as set forth in the claim. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Since the Examiner has not addressed this limitation, the Examiner has not established a prima facie case of anticipation in rejecting claim 10. M.P.E.P. §2131.

3. Claim 11 is not anticipated by Nathanson for at least the reasons that claim 10 is not anticipated by Nathanson.

Claim 11 recites combinations of features of independent claim 10, and hence claim 11 is not anticipated by Nathanson for at least the above-stated reasons that claim 10 is not anticipated by Nathanson.

#### Claim 11 is not anticipated by Nathanson.

Appellants respectfully assert that Nathanson does not disclose "implemented within a vehicle which includes the first and second data processing units, wherein the secure resources include the vehicle's internal device control units" as recited in claim 11. The Examiner has not specifically addressed this limitation. The Examiner is reminded that in order to establish a *prima facie* case of anticipation, the Examiner must provide a single prior art reference that expressly or inherently describes each and every element as set forth in the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Since the Examiner has not addressed this limitation, the Examiner has not established a *prima facie* case of anticipation in rejecting claim 11. M.P.E.P. 82131.

F. Claims 7-8 and 10 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Pfleeger.

- Chen and Pfleeger, taken singly or in combination, do not teach
  or suggest the following claim limitations.
  - Claim 7 is patentable over Chen in view of Pfleeger.

Appellants respectfully assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "a second data processing unit connected to an external communications network such that operation requests can be received from the external network" as recited in claim 7. As understood by Appellants, the Examiner cites element 6 of Chen as teaching the second data processing unit. Office Action (2/26/2007), page 7. The Examiner further cites object 50 in Figure 2 of Chen in connection with the rejection of the above-cited claim limitation. Id. Appellants respectfully traverse that Chen teaches the above-cited claim limitation.

Appellants could not identify an element 50 in Figure 2 of Chen or an element 50 in any Figure of Chen. Appellants respectfully request the Examiner to clarify the meaning of citing to element 50 in Figure 2 of Chen in the Examiner's Answer pursuant to 37 C.F.R. §1.104(c)(2).

Further, Chen instead teaches that when the client-side monitor/control server 4 receives a signal from any of aforesaid sensor units, that signal will be transmitted to the remote administrating and monitoring device 6 via the public telecom-network 5, and then be decoded and explained and sent by the remote administrating and monitoring device 6 to the promulgating network 8 via the public telecom-network 7.

There is no language in Chen that teaches that the remote administrating and monitoring device 6 (Examiner asserts that device 6 of Chen teaches a second data processing unit) is connected to an external communications network such that operation requests can be received from the external network. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 7.

since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.O.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation" as recited in claim 7. The Examiner cites a firewall and pages 426-434 of Pfleeger as teaching the above-cited claim limitation. Office Action (2/26/2007), pages 5 and 8. Appellants respectfully traverse.

Pfleeger instead teaches that a firewall is a process that filters all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Page 428.

There is no language in the cited passage that teaches a gateway component for controlling communications across the link. Neither is there any language in the cited passage that teaches a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit. Neither is there any language in the cited passage that teaches a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit. Neither is there any language in the cited passage that teaches a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 7, since the Examiner is relying upon incorrect, factual

predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

 Claim 8 is patentable over Chen in view of Pfleeger for at Jeast the reasons that claim 7 is patentable over Chen in view of Pfleeger.

Claim 8 recites combinations of features of independent claim 7, and hence claim 8 is patentable over Chen in view of Pfleeger for at least the above-stated reasons that claim 7 is patentable over Chen in view of Pfleeger.

#### c. Claim 10 is patentable over Chen in view of Pfleeger.

Appellants respectfully assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link" as recited in claim 10. As understood by Appellants, the Examiner cites element 4 of Chen as teaching a first data processing unit; element 5 of Chen as teaching a communication link and element 6 of Chen as teaching a second data processing unit. Office Action (2/26/2007), page 7. As further understood by Appellants, the Examiner cites a firewall and pages 426-434 of Pfleeger as teaching the aspect of controlling the initiation of operations relating to secure resources such that only a limited predefined set of operations can be initiated by requests. Office Action (2/26/20007), page 8. Appellants respectfully traverse the assertion that Chen and Pfleeger, taken singly, teach the above-cited claim limitation.

Pfleeger instead teaches that a firewall is a process that filters all traffic between a protected or "inside" network and a less trustworthy or "outside" network. Page 428.

There is no language in Pfleeger that teaches controlling the initiation of operations relating to secure resources. Neither is there any language in Pfleeger that

teaches controlling the initiation of operations relating to secure resources such that only a limited predefined set of operations can be initiated by requests.

Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 10, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "storing a list of permitted operations which can be requested from the second data processing unit" as recited in claim 10. The Examiner has not specifically addressed this limitation. The Examiner is reminded that in order to establish a *prima facie* case of obviousness, the Examiner must provide a reference or combination of references that teaches each and every element as set forth in the claim. M.P.E.P. §§2142-2143. Since the Examiner has not addressed this limitation, the Examiner has not established a *prima facie* case of obviousness in rejecting claim 10. M.P.E.P. §2143.

Appellants further assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations" as recited in claim 10. The Examiner has not specifically addressed this limitation. The Examiner is reminded that in order to establish a prima facie case of obviousness, the Examiner must provide a reference or combination of references that teaches each and every element as set forth in the claim. M.P.E.P. §§2142-2143. Since the Examiner has not addressed this limitation, the Examiner has not established a prima facie case of obviousness in rejecting claim 10. M.P.E.P. §2143.

Appellants further assert that Chen and Pfleeger, taken singly or in combination, do not teach or suggest "only executing the permitted operations" as recited in claim 10. The Examiner has not specifically addressed this limitation. The

Examiner is reminded that in order to establish a *prima facie* case of obviousness, the Examiner must provide a reference or combination of references that teaches each and every element as set forth in the claim. M.P.E.P. §\$2142-2143. Since the Examiner has not addressed this limitation, the Examiner has not established a *prima facie* case of obviousness in rejecting claim 10. M.P.E.P. §2143.

 Examiner's motivation for modifying Chen with Pfleeger to include the missing claim limitations of claims 7 and 10 is insufficient to establish a prima facie case of obviousness.

Most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.O.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.O.2d 1313, 1317 (Fed. Cir. 2000).

As understood by Appellants, the Examiner admits that Chen does not teach
"a gateway component for controlling communications across the link, the gateway

component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation" as recited in claim 7. Office Action (2/26/2007), page 8. As further understood by Appellants, the Examiner admits that Chen does not teach the aspect of controlling the initiation of operations relating to secure resources such that only a limited predefined set of operations can be initiated by requests, as recited in claim 10. Id. The Examiner asserts that Pfleeger teaches these missing claim limitations. Id. The Examiner's motivation for modifying Chen with Pfleeger to include the above-cited claim limitations is "in order to prevent a threat of an intruder penetrating the second data processing unit connected to security critical devices." Id. The Examiner's motivation is insufficient to establish a prima facie case of obviousness in rejecting claims 7-8 and 10.

The Examiner has not provided a source for his motivation for modifying Chen to include the above-cited claim limitations. The Examiner simply states "in order to prevent a threat of an intruder penetrating the second data processing unit connected to security critical devices" as motivation for modifying Chen to include the above-cited claim limitations. The motivation to modify Chen must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Appellants respectfully request the Examiner to point out which of these sources is the source of the Examiner's motivation. The Examiner has not provided any evidence that his

Appellants feel it is very important for the Examiner to point out the source of the Examiner's motivation because it appears to Appellants that the Examiner is relying upon his own subjective opinion. The reason why the Federal Circuit (In ne Lee, 6 I U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2000)) has required the Examiner to provide objective evidence is because it may be easy to conclude that it would be obvious to combine references using hindsight reasoning even though there is no motivation or suggestion to do so. One can usually find a reason to combine references or make modifications to the main reference. If that were all it took, then all inventions would be obvious and not patentable. For example, assuming that a wheelbarrow had never been developed and a patentee had claimed a wheelbarrow, if the main reference taught a cart with a shallow box body, and the secondary reference taught two wheels, then the Examiner could simply assert, using hindsight reasoning without providing objective evidence, that the motivation for combining the two references is so that the cart could be

motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 7-8 and 10. *Id*.

Further, the Examiner's motivation (prevent penetrating the data processing unit connected to security critical devices) appears to have been gleaned only from Appellants' disclosure, such as for example on page 2, lines 17-20; page 9, line 7 – page 10, line 2 of Appellants' Specification. Any judgment on obviousness must not include knowledge gleaned only from Appellants' disclosure. *In re McLaughlin*, 170 U.S.P.Q. 209, 212 (C.C.P.A. 1971). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 7-8 and 10. M.P.E.P. §2145.

- G. Claim 2 is not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Coverdill.
  - Nathanson and Coverdill, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Nathanson and Coverdill, taken singly or in combination, do not teach or suggest "wherein the first data processing unit (A) is adapted to store in an unmodifiable form a list of said predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of said device control units and to discard non-permitted operation requests" as recited

moved from place to place. Hence, the patentee could not obtain a patent on the wheelbarrow (even though one has never been developed) based on the Examiner's rationale for combining the references. Yet the Examiner has not provided any evidence that a person of ordinary skill in the art would have combined the references to make such a product. In hindsight, everything is obvious. It seems that a question that should be asked is why the invention (in this example a wheelbarrow) was not already developed. If it it is so obvious, then it would seem it already would have been developed.

in claim 2. The Examiner cites column 5, lines 5-15, 50-65; and column 8, line 64-column 19 of Coverdill as teaching the above-cited claim limitations. Office Action (2/26/2007), page 10. Appellants respectfully traverse.

Coverdill instead teaches that the messages passed among the electronic control units convey information by one or more parameters contained within them. Column 5, lines 5-6. Coverdill further teaches an instrumentation control unit that can be used to check electronic components installed on the truck. Column 5, lines 50-52. Coverdill additionally teaches that the instrumentation control unit is typically positioned in the truck cab for easy access, and the most preferably at the dash of the truck. Column 5, lines 53-55. Hence, Coverdill teaches messages passed among the electronic control units that convey information by one or more parameters contained within them. Coverdill further teaches an instrumentation control unit that can be used to check electronic components installed on the truck.

There is no language in the cited passages that teaches a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations. Neither is there any language in the cited passages that teaches a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B). Neither is there any language in the cited passages that teaches a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations. Neither is there any language in the cited passages that teaches a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations and then to pass the permitted operation requests

to respective ones of the device control units. Neither is there any language in the cited passages that teaches a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations and then to pass the permitted operation requests to respective ones of the device control units and to discard non-permitted operation requests. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 2, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

 Examiner's motivation for modifying Nathanson with Coverdill to include the missing claim limitations of claim 2 is insufficient to establish a prima facie case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed.

Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.O.2d 1313, 1317 (Fed. Cir. 2000).

As understood by Appellants, the Examiner admits that Nathanson does not teach "wherein the first data processing unit (A) is adapted to store in an unmodifiable form a list of said predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of said device control units and to discard non-permitted operation requests" as recited in claim 2. Office Action (2/26/2007), pages 9-10. The Examiner asserts that Coverdill teaches these missing claim limitations. Id. at page 10. The Examiner's motivation for modifying Nathanson with Coverdill to include the above-cited claim limitations is "given the benefit of forwarding the requests to correct particular vehicle's device control unit...given the benefit of saving unnecessary use of resources and preventing system's corruption." Id. The Examiner's motivation is insufficient to establish a prima facie case of obviousness in rejecting claim 2.

The Examiner has not provided a source for his motivation for modifying Nathanson to include the above-cited claim limitations. The Examiner simply states "given the benefit of forwarding the requests to correct particular vehicle's device control unit...given the benefit of saving unnecessary use of resources and preventing system's corruption" as motivation for modifying Nathanson to include the above-cited claim limitations. The motivation to modify Nathanson must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Appellants respectfully request the Examiner to point out which of these sources is the source of the Examiner's motivation. The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon

his own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claim 2. *Id.* 

The Examiner' motivation ("given the benefit of forwarding the requests to correct particular vehicle's device control unit...given the benefit of saving unnecessary use of resources and preventing system's corruption") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the above-indicated missing claim limitations of claim 2. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 2. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Nathanson addresses the disadvantage of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment. Column 1, lines 49-51. The Examiner has not provided any reasons as to why one skilled in the art would modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of the device control units and to discard non-permitted operation requests (missing claim limitations). The Examiner's motivation ("given the benefit of forwarding the requests to correct particular vehicle's device control unit...given the benefit of saving unnecessary use of resources and preventing system's corruption") does not provide such reasoning.

The Examiner simply states various benefits without providing any rationale connection between how these benefits relate to the missing claim limitations and how these benefits relate to the teaching of Nathanson. Why would the reason to modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of the device control units and to discard non-permitted operation requests (missing claim limitations) be to have the benefit of forwarding the requests to correct the particular vehicle's device control unit as well as to have the benefit of saving unnecessary use of resources and preventing system corruption? Why would Nathanson be concerned with having these benefits and then accomplishing these benefits by modifying Nathanson to include the above-cited missing claim limitations? The Examiner has not provided any support for having a first data processing unit (A) that is adapted to store in an unmodifiable form a list of the predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of the device control units and to discard non-permitted operation requests (missing claim limitations) in order to have the benefit of forwarding the requests to correct the particular vehicle's device control unit and in order to have the benefit of saving unnecessary use of resources and preventing system corruption. The Examiner must provide a rationale connection between the Examiner's motivation and the above-cited missing claim limitations. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify

Nathanson to include the missing claim limitations of claim 2. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 2. *In re Rouffet*, 47 U.S.P.O.2d 1453, 1458 (Fed. Cir. 1998).

- H. Claim 4 is not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Elkin.
  - Nathanson and Elkin, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Nathanson and Elkin, do not teach or suggest "wherein the second data processing unit (B) is adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and wherein the second data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" as recited in claim 4. As understood by Appellants, the Examiner cites the Abstract, column 18, line 61 – column 19, line 3 of Elkin as teaching the above-cited claim limitations. Office Action (2/26/2007), page 11. Appellants respectfully traverse.

Elkin instead teaches that each operator identification is associated with an access level. Column 18, lines 61-62. Elkin further teaches that the access level determines which functions within the system the operator is allowed to perform. Column 18, lines 62-63. Elkin additionally teaches that for example, certain operator identifications may be limited to selecting the mechanic menu. Column 18, lines 63-65. Hence, Elkin teaches that each operator identification is associated with an access level.

There is no language in the cited passages that teaches a second data processing unit (B) that is adapted to store one or more access control lists. Neither is there any language in the cited passages that teaches a second data processing unit (B)

that is adapted to store one or more access control lists defining which operation requests are permitted for particular requestors. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 4, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

> Examiner's motivation for modifying Nathanson with Elkin to include the missing claim limitations of claim 4 is insufficient to establish a prima facie case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same

problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

As understood by Appellants, the Examiner admits that Nathanson does not teach "wherein the second data processing unit (B) is adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and wherein the second data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" as recited in claim 4. Office Action (2/26/2007), page 11. The Examiner asserts that Elkin teaches these missing claim limitations. Id. The Examiner's motivation for modifying Nathanson with Elkin to include the above-cited claim limitations is "given the benefit of saving unnecessary use of resources and preventing security." Id. at page 12. The Examiner's motivation is insufficient to establish a prima facie case of obviousness in rejecting claim 4.

The Examiner has not provided a source for his motivation for modifying Nathanson to include the above-cited claim limitations. The Examiner simply states "given the benefit of saving unnecessary use of resources and preventing security" as motivation for modifying Nathanson to include the above-cited claim limitations. The motivation to modify Nathanson must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the

knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Appellants respectfully request the Examiner to point out which of these sources is the source of the Examiner's motivation. The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective opinion which is insufficient to support a prima facie case of obviousness. In re Lee, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a prima facie case of obviousness for rejecting claim 4. Id.

The Examiner' motivation ("given the benefit of saving unnecessary use of resources and preventing security") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the above-indicated missing claim limitations of claim 4. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 4. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Nathanson addresses the disadvantage of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment. Column 1, lines 49-51. The Examiner has not provided any reasons as to why one skilled in the art would modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have the second data processing unit (B) be adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and where the second data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations). The Examiner's motivation ("given the benefit

of saving unnecessary use of resources and preventing security") does not provide such reasoning.

The Examiner simply states various benefits without providing any rationale connection between how these benefits relate to the missing claim limitations and how these benefits relate to the teaching of Nathanson. Why would the reason to modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have the second data processing unit (B) be adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and where the second data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations) be to have the benefit of saving unnecessary use of resources and preventing security? Why would Nathanson be concerned with having these benefits and then accomplishing these benefits by modifying Nathanson to include the above-cited missing claim limitations? The Examiner has not provided any support for having the second data processing unit (B) be adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and where the second data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations) in order to have the benefit of saving unnecessary use of resources and preventing security. The Examiner must provide a rationale connection between the Examiner's motivation and the above-cited missing claim limitations. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems

as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the missing claim limitations of claim 4. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 4. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

- Claim 3 is not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Coverdill and in further view of Seruehett.
  - Nathanson in view of Coverdill and Serughett, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Nathanson, Coverdill and Serughett, taken singly or in combination, do not teach or suggest "wherein the first data processing unit (A) includes a static operating system environment and the gateway component of the first data processing unit (A) runs in the static operating system environment" as recited in claim 3. The Examiner cites Serughett as teaching the above-cited claim limitation. Office Action (2/26/2007), page 12. However, the Examiner has not cited to any particular passage in Serughett as allegedly teaching the above-cited claim limitation. Upon review of Serughett, Appellants did not locate any language that teaches the above-cited claim limitation. While Serughett teaches a kernel specification that defines a static configuration approach as well as teaches implementing the OSEK/VDX specification to automotive applications (Page 25), there is no language in Serughett that teaches a gateway component of a data processing unit that runs in the static operating system environment. The Examiner appears to assert that it is Appellants burden to show to the contrary. This is incorrect as explained above. The Examiner has the initial burden to establish a prima facie case of obviousness which includes providing a reference or combination of references that teaches or suggests all of the claim limitations. M.P.E.P. §§2142-2143. The Examiner has not met that burden by not citing to a reference that teaches the above-cited claim limitation. Therefore, the Examiner has not presented a prima

facie case of obviousness in rejecting claim 3, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

 Examiner's motivation to modify Nathanson with Serughett to incorporate the missing claim limitation of claim 3 is insufficient to establish a prima facie case of obviousness in rejecting claim 3.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.O.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.O.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Nathanson does not teach "wherein the first data processing unit (A) includes a static operating system environment and the gateway component of the first data processing unit (A) runs in the static operating system

environment" as recited in claim 3. Office Action (2/26/2007), page 12. The Examiner asserts that Serughett teaches the above-cited claim limitations. *Id.* The Examiner's motivation for modifying Nathanson with Serughett to include the above-cited claim limitations is "given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling, etc." *Id.* The Examiner cites page 26 of Serughett as support for the Examiner's motivation. Office Action (9/8/2006), page 6. This motivation is insufficient to support a *prima facie* case of obviousness in rejecting claim 3 as discussed below.

The Examiner's motivation ("given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling, etc.") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the missing claim limitation of claim 3. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 3. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

As stated above, the Examiner cites page 26 of Serughett as support for the Examiner's motivation. Serughett provides reasons as to why a customer should choose OSEK as an operating system. Page 26. How does providing reasons as to why a customer should choose OSEK as an operating system provide reasons as to why one skilled in the art would modify Nathanson to include the missing claim limitations of claim 3? How does this relate to the purpose of Nathanson, which is to provide mobile automotive telemetry (column 1, lines 9-52)? What is the rationale connection between "wherein the first data processing unit (A) includes a static operating system environment and the gateway component of the first data processing unit (A) runs in the static operating system environment" (missing claim limitations of claim 3) and providing reasons as to why a customer should choose OSEK as an operating system? The Examiner's cited passage that supports the Examiner's motivation does not provide reasons as to why one skilled in the art would modify Nathanson to include the missing claim limitations of claim 3. Accordingly, the

Examiner has not presented a *prima facie* case of obviousness for rejecting claim 3. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Further, Nathanson addresses the problem of not being able to provide mobile automotive telemetry. Column 1, lines 9-52. The Examiner has not provided any reasons as to why one skilled in the art would modify Nathanson (which teaches providing mobile automotive telemetry) to have a first data processing unit (A) include a static operating system environment and the gateway component of the first data processing unit (A) run in the static operating system environment (missing claim limitations of Nathanson). The Examiner's motivation ("given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling") does not provide such reasoning.

The Examiner's motivation is simply the selling points as to why a customer would want to purchase the OSEK. Why would the reason to modify Nathanson (whose purpose is to provide mobile automotive telemetry) to have a first data processing unit (A) include a static operating system environment and the gateway component of the first data processing unit (A) run in the static operating system environment (missing claim limitations of Nathanson) be the selling points as to why a customer would want to purchase the OSEK? Nathanson is not necessarily concerned with a super-small kernel for deeply embedded applications. The Examiner cannot completely ignore the teachings of Nathanson in concluding it would have been obvious to modify Nathanson to include the missing claim limitations of claim 3. <sup>2</sup> Hence, the Examiner's motivation does not provide reasons

<sup>&</sup>lt;sup>2</sup> Appellants respectfully request Examiner Poltorak to respond to the following example. For example, suppose that the invention of a super soaker gun (essentially a plastic gun that shoots water) was never developed and an Applicant filed for a patent application on the super soaker gun. Applicant claims a plastic gun with a container of water that shoots water. The Examiner cites a primary reference that teaches a plastic gun that shoots darts and cites a secondary reference that teaches a plastic toy that contains a container of water. Since the primary reference does not teach a container a plastic toy that contains a container cite the secondary reference as teaching this missing claim limitation. The secondary reference expecifically states that the purpose of the container is to carry water. The Examiner then concludes that it would have been obvious to modify the primary reference wind the secondary reference in order to carry water. The Examiner believes that they have stabilished a prima.

that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the missing claim limitations of claim 3. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 3. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

- J. Claim 5 is not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Nathanson in view of Elkin and in further view of Serughett.
  - Nathanson, Elkin and Serughett, taken singly or in combination, do not teach or suggest the following claim limitations.

Appellants respectfully assert that Nathanson, Elkin and Serughett, taken singly or in combination, do not teach or suggest "the first data processing unit (A) includes a Real Time Operating System; and the second data processing unit (B) includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" as recited in claim 5. As understood by Appellants, the Examiner cites the Abstract, column 18, line 61 – column 19, line 3 of Elkin as teaching the above-cited claim limitations except the aspect of a real time operating system. Office Action (2/26/2007), pages 11, 13. Appellants respectfully traverse.

facie case of obviousness since the Examiner has found a reason to have a container of water. However, the Examiner is completely ignoring the teaching of the primary reference. Why would one skilled in the art modify a plastic gun that shoots darts to have a container of water? This is the key question to answer. While having a container of water may be used to carry water, that is irrelevant as far as the purpose of the primary reference. Simply citing to a passage in the secondary reference that discusses the purpose of that secondary reference may not be sufficient evidence for an obviousness rejection. After all, surely there is a reason as to why the secondary reference teaches the missing claim limitation or else why would the Examiner include it? The Examiner must explain the connection between the teachings of the primary reference and the rationale of the secondary reference for including the missing claim limitation. Otherwise, everything can be deemed obvious and virtually nothing can be natented.

Elkin instead teaches that each operator identification is associated with an access level. Column 18, lines 61-62. Elkin further teaches that the access level determines which functions within the system the operator is allowed to perform. Column 18, lines 62-63. Elkin additionally teaches that for example, certain operator identifications may be limited to selecting the mechanic menu. Column 18, lines 63-65. Hence, Elkin teaches each operator identification is associated with an access level.

There is no language in the cited passages that teaches a second data processing unit (B) that includes means for performing authentication of requestors. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A). Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors. Neither is there any language in the cited passages that teaches a second data processing unit (B) that includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 5, since the Examiner is relying upon

incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

 Examiner's motivation for modifying Nathanson with Elkin to include the missing claim limitations of claim 5 is insufficient to establish a prima facie case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.O.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.O.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

As understood by Appellants, the Examiner admits that Nathanson does not teach "second data processing unit (B) includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first

data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests" as recited in claim 5. Office Action (2/26/2007), pages 11 and 13. The Examiner asserts that Elkin teaches these missing claim limitations. *Id.* The Examiner's motivation for modifying Nathanson with Elkin to include the above-cited claim limitations is "given the benefit of saving unnecessary use of resources and preventing security." *Id.* at pages 12, 13. The Examiner's motivation is insufficient to establish a *prima facie* case of obviousness in rejecting claim 5.

The Examiner has not provided a source for his motivation for modifying Nathanson to include the above-cited claim limitations. The Examiner simply states "given the benefit of saving unnecessary use of resources and preventing security" as motivation for modifying Nathanson to include the above-cited claim limitations. The motivation to modify Nathanson must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Appellants respectfully request the Examiner to point out which of these sources is the source of the Examiner's motivation. The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective opinion which is insufficient to support a prima facie case of obviousness. In re Lee, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a prima facie case of obviousness for rejecting claim 5. Id.

The Examiner' motivation ("given the benefit of saving unnecessary use of resources and preventing security") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the above-indicated missing claim limitations of claim 5. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 5. In re Rouffet, 47 U.S.P.O.2d 1453, 1458 (Fed. Cir. 1998).

Nathanson addresses the disadvantage of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment. Column 1, lines 49-51. The Examiner has not provided any reasons as to why one skilled in the art would modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have the second data processing unit (B) include means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations). The Examiner's motivation ("given the benefit of saving unnecessary use of resources and preventing security") does not provide such reasoning.

The Examiner simply states various benefits without providing any rationale connection between how these benefits relate to the missing claim limitations and how these benefits relate to the teaching of Nathanson. Why would the reason to modify Nathanson (which teaches overcoming the problem of obtaining diagnostic information from the on-board automotive diagnostic system only in the form of responses to requests submitted from the test equipment) to have the second data processing unit (B) include means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations) be to have the benefit of saving unnecessary use of resources and preventing security? Why would Nathanson be concerned with having these benefits and then accomplishing these benefits by modifying Nathanson to include the above-cited missing claim limitations? The Examiner has not provided any support for

having the second data processing unit (B) include means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests (missing claim limitations) in order to have the benefit of saving unnecessary use of resources and preventing security. The Examiner must provide a rationale connection between the Examiner's motivation and the above-cited missing claim limitations. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the missing claim limitations of claim 5. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 5. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

 Examiner's motivation to modify Nathanson with Serughett to incorporate the missing claim limitation of claim 5 is insufficient to establish a prima facie case of obviousness in rejecting claim 5.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner

claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Nathanson does not teach "wherein the first data processing unit (A) includes a real time operating system" as recited in claim 5. Office Action (2/26/2007), page 13. The Examiner asserts that Serughett teaches the above-cited claim limitations. Id. The Examiner's motivation for modifying Nathanson with Serughett to include the above-cited claim limitations is "given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling, etc." Id. at pages 12, 13. The Examiner cites pages 26-27 of Serughett as support for the Examiner's motivation. Id. at page 13. This motivation is insufficient to support a prima facie case of obviousness in rejecting claim 5 as discussed below.

The Examiner's motivation ("given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling, etc.") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the above-cited missing claim limitation of claim 5. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 5. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

As stated above, the Examiner cites pages 26-27 of Serughett as support for the Examiner's motivation. Serughett provides reasons as to why a customer should

choose OSEK as an operating system. Page 26. How does providing reasons as to why a customer should choose OSEK as an operating system provide reasons as to why one skilled in the art would modify Nathanson to include the above-cited missing claim limitations of claim 5? How does this relate to the purpose of Nathanson, which is to provide mobile automotive telemetry (column 1, lines 9-52)? What is the rationale connection between "wherein the first data processing unit (A) includes a real time operating system environment" (missing claim limitation of claim 5) and providing reasons as to why a customer should choose OSEK as an operating system? The Examiner's cited passage that supports the Examiner's motivation does not provide reasons as to why one skilled in the art would modify Nathanson to include the above-cited missing claim limitations of claim 5. Accordingly, the Examiner has not presented a prima facie case of obviousness for rejecting claim 5. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Further, Nathanson addresses the problem of not being able to provide mobile automotive telemetry. Column 1, lines 9-52. The Examiner has not provided any reasons as to why one skilled in the art would modify Nathanson (which teaches providing mobile automotive telemetry) to have a first data processing unit (A) include a real time operating system (missing claim limitations of Nathanson). The Examiner's motivation ("given the various benefit[s] disclosed by Serughett: reliability, minimal resource usage, highly efficient scheduling") does not provide such reasoning.

The Examiner's motivation is simply the selling points as to why a customer would want to purchase the OSEK. Why would the reason to modify Nathanson (whose purpose is to provide mobile automotive telemetry) to have a first data processing unit (A) include a real time operating system (missing claim limitation of Nathanson) be the selling points as to why a customer would want to purchase the OSEK? Nathanson is not necessarily concerned with a super-small kernel for deeply embedded applications. The Examiner cannot completely ignore the teachings of Nathanson in concluding it would have been obvious to modify Nathanson to include

the above-cited missing claim limitation of claim 5. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Nathanson to include the above-cited missing claim limitation of claim 5. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 5. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

- K. Claims 7-8 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Bassett in view of Richardson.
  - Bassett and Richardson, taken singly or in combination, do not teach or suggest the following claim limitations.
    - Claim 7 is patentable over Bassett in view of Richardson.

Appellants respectfully assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "a second data processing unit connected to an external communications network such that operation requests can be received from the external network" as recited in claim 7. The Examiner cites element 15 of Bassett as teaching a second data processing unit. Office Action (2/26/2007), page 13. The Examiner further relies upon column 12, lines 41-57 and Figure 6 as teaching the above-cited claim limitation. *Id.* Appellants respectfully traverse.

Bassett instead teaches that element 15 corresponds to an automation system controller connected to the residence electrical wiring system. Column 5, lines 25-27. The Examiner must provide a basis in fact and/or technical reasoning to support the conclusion that an automation system controller, as taught in Bassett, inherently teaches a data processing system. See Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must provide extrinsic evidence that must make clear that an automation system controller, as taught in Bassett, inherently teaches a data processing system, and that it would be so recognized by persons of ordinary skill. See In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). Since the Examiner has not provided any such objective evidence, the Examiner has not

presented a prima facie case of obviousness for rejecting claim 7. M.P.E.P. §2143.

Further, Bassett instead teaches that the gas meter, water heater and furnace are connected via their respective appliance interface modules. Column 12, lines 44-46. There is no language in the cited passage that teaches a second data processing unit. Neither is there any language in the cited passage that teaches a second data processing unit connected to an external communications network. Neither is there any language in the cited passage that teaches a second data processing unit connected to an external communications network such that operation requests can be received from the external network. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 7, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Additionally, regarding claim 7, Appellants respectfully assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "a gateway component for controlling communications across the link." The Examiner asserts that this limitation is inherently taught by Bassett. Office Action (2/26/2007), pages 13-14. Appellants respectfully traverse. The Examiner must provide a basis in fact and/or technical reasoning to support the conclusion that Bassett inherently teaches a gateway component for controlling communications across the link. Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must provide extrinsic evidence that must make clear that Bassett inherently teaches a gateway component for controlling communications across the link, and that it would be so recognized by persons of ordinary skill. In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). Since the Examiner has not provided any such objective evidence, the Examiner has not presented a prima facie case of obviousness for rejecting claim 7. M.P.E.P. 82143

Appellants further assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "the gateway component limiting the operations

which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation" as recited in claim 7. The Examiner cites column 5, lines 49-59 of Richardson as teaching the above-cited claim limitation. Office Action (2/26/2007), page 14. Appellants respectfully traverse. As stated above, Richardson instead teaches that an enabler is arranged in between on of the lines of decoded instructions from the decoder that are input into the CPU. Column 5, lines 49-52. There is no language in the cited passage that teaches a gateway component limiting the operations which can be performed at the first data processing unit. Neither is there any language in the cited passage that teaches a gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit. Neither is there any language in the cited passage that teaches a gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 7, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. In re Rouffet, 47 U.S.P.O.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "wherein the first and second data processing units and the link between them are implemented within a network-connected home environment" as recited in claim 7. The Examiner cites Figure 1 of Bassett as teaching the above-cited claim limitation. Office Action (2/26/2007), page 13. Appellants respectfully traverse. There is no language in the description of Figure 1 of Bassett that teaches first and second data processing units. Neither is there any language in the description of Figure 1 of Bassett that teaches first and second data processing units and the link between them are implemented within a network-connected home environment. Therefore, the Examiner has not presented a prima facile case of obviousness in rejecting claim 7, since the Examiner is relying upon

incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellants further assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "the security-critical resources include securitycritical devices within the home which are managed by application programs running on the first data processing unit" as recited in claim 7. The Examiner cites column 9. lines 29-34 and 51-67; and Figure 15 of Bassett as teaching the above-cited claim limitation. Office Action (2/26/2007), page 13. Appellants respectfully traverse and assert that Bassett instead teaches that an appliance interface module would require an interface, a microprocessor and a device-specific interface. Column 9, lines 29-34. There is no language in the cited passages that teaches security-critical resources including security-critical devices within a home. Neither is there any language in the cited passages that teaches security-critical resources including security-critical devices within a home which are managed by application programs running on the first data processing unit. Therefore, the Examiner has not presented a prima facie case of obviousness in rejecting claim 7, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. In re Rouffet, 47 U.S.P.O.2d 1453, 1455 (Fed. Cir. 1998).

> Claim 8 is patentable over Bassett in view of Richardson for at least the reasons that claim 7 is patentable over Bassett in view of Richardson.

Claim 8 recites combinations of features of independent claim 7, and thus claim 8 is patentable over Bassett in view of Richardson for at least the reasons that claim 7 is patentable over Bassett in view of Richardson.

 Claim 8 is patentable over Bassett in view of Richardson.

Appellants respectfully assert that Bassett and Richardson, taken singly or in combination, do not teach or suggest "wherein the external network is the Internet" as

recited in claim 8. The Examiner asserts that the above-cited claim limitation is well known in the art. Office Action (2/26/2007), page 14. While the Internet itself is well known, Appellants respectfully traverse the assertion that it is well known in the art to have a second data processing unit connected to an external communications network such that operation requests can be received from the external network, where the external network is the Internet. Appellants had requested the Examiner to provide a reference that teaches the above-cited claim limitation pursuant to M.P.E.P. §2144.03. However, the Examiner failed to provide such a reference.

#### Further, the Examiner states:

One would have been motivated to use them especially in light of the benefits of [the] Internet as evidence by Internet commercial success. Office Action (2/26/2007), page 14.

The Examiner has not provided an objective source for the motivation for modifying Bassett and Richardson to include the above-cited claim limitation. Instead, the Examiner is relying upon the Examiner's own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claim 8. *Id*.

 Examiner's motivation to modify Bassett with Richardson to incorporate the missing claim limitations of claims 7 is insufficient to establish a prima facie case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. See In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. In re Rouffet, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. Id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See Id. In order to establish a prima facie case of obviousness, the

Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. In re Kotzab, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Bassett does not teach "the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second data processing unit to only a predefined set of permitted operations" as recited in claim 7. Office Action (2/26/2007), page 14. The Office Action asserts that Richardson teaches the above-cited claim limitation. Id. The Examiner's motivation for modifying Bassett with Richardson to include the above-cited claim limitation is "given the benefit of increased security." Id. The Examiner's motivation is insufficient to support a prima facie case of obviousness in rejecting claims 7-8 as discussed below.

The Examiner has not provided a source for his motivation for modifying Bassett with Richardson to include the above-cited claim limitation. The motivation to modify Bassett with Richardson must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Appellants respectfully request the Examiner to point out which of these sources is the source of the Examiner's motivation. The Examiner has not provided any evidence that his motivation comes from any of these sources. Instead, the Examiner is relying upon his own subjective

opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claims 7-8. *Id*.

Further, the Examiner's motivation (benefit of increased security) appears to have been gleaned only from Appellants' disclosure, such as for example on page 2, lines 17-20; page 9, line 7 – page 10, line 2 of Appellants' Specification. Any judgment on obviousness must not include knowledge gleaned only from Appellants' disclosure. In re McLaughlin, 170 U.S.P.Q. 209, 212 (C.C.P.A. 1971). Consequently, the Examiner's motivation is insufficient to support a prima facie case of obviousness for rejecting claims 7-8. M.P.E.P. §2145.

## VIII. CONCLUSION

For the reasons noted above, the rejections of claims 1-5, 7-8 and 10-11 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-5, 7-8 and 10-11.

Respectfully submitted,

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#### CLAIMS APPENDIX

- A data processing apparatus for a vehicle, including:
- a first data processing unit (A) connected to device control units of the vehicle:
- a second data processing unit (B) connected to a communications apparatus providing a wireless connection to an external network, such that operation requests can be received at the second data processing unit (B) from the external network:
- a data communications link between the first and second data processing units; and
- a gateway component for controlling communications across the data communications link, the gateway component limiting passing of the operation requests from the second data processing unit to the vehicle's device control units to only a predefined set of permitted operations.
- 2. A data processing apparatus according to claim 1, wherein the first data processing unit (A) is adapted to store in an unmodifiable form a list of said predefined set of permitted operations and includes a gateway component for comparing all operation requests received from the second data processing unit (B) with the list of permitted operations, and then to pass the permitted operation requests to respective ones of said device control units and to discard non-permitted operation requests.
- 3. A data processing apparatus according to claim 2 wherein the first data processing unit (A) includes a static operating system environment and the gateway component of the first data processing unit (A) runs in the static operating system environment.
- 4. A data processing apparatus according to claim 1, wherein the second data processing unit (B) is adapted to store one or more access control lists defining which operation requests are permitted for particular requestors, and wherein the second

data processing unit (B) includes a gateway component for comparing all operation requests on the first data processing unit (A) with the access control lists and only passing to the first data processing unit (A) those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests.

# 5. A data processing apparatus according to claim 1, wherein:

the first data processing unit (A) includes a Real Time Operating System; and the second data processing unit (B) includes means for performing authentication of requestors and a gateway component for comparing all operation requests sent to the first data processing unit (A) with access control lists and for passing to the first data processing unit (A) only those operation requests which are permitted for the respective requestors and discarding non-permitted operation requests.

### 7. A data processing apparatus, including:

- a first data processing unit connected to one or more security-critical resources:
- a second data processing unit connected to an external communications network such that operation requests can be received from the external network;
- a data communications link between the first and second data processing units; and
- a gateway component for controlling communications across the link, the gateway component limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation, wherein the first and second data processing units and the link between them are implemented within a network-connected home environment, and the security-critical resources include security-critical devices within the home which are managed by application programs running on the first data processing unit.

 A data processing apparatus according to claim 7, wherein the external network is the Internet.

10. A method for controlling the initiation of operations relating to secure resources on a first data processing unit such that only a limited predefined set of operations can be initiated by requests from a second data processing unit connected to the first data processing unit by a communications link, the method comprising:

storing a list of permitted operations which can be requested from the second data processing unit;

comparing, by a secure gateway component which controls communications across the communications link, requests to perform operations relating to secure resources on the first data processing unit with the list of permitted operations; and only executing the permitted operations.

11. A method according to claim 10, implemented within a vehicle which includes the first and second data processing units, wherein the secure resources include the vehicle's internal device control units.

#### EVIDENCE APPENDIX

No evidence was submitted pursuant to §§1.130, 1.131, or 1.132 of 37 C.F.R. or of any other evidence entered by the Examiner and relied upon by Appellants in the Appeal.

## RELATED PROCEEDINGS APPENDIX

There are no related proceedings to the current proceeding.

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